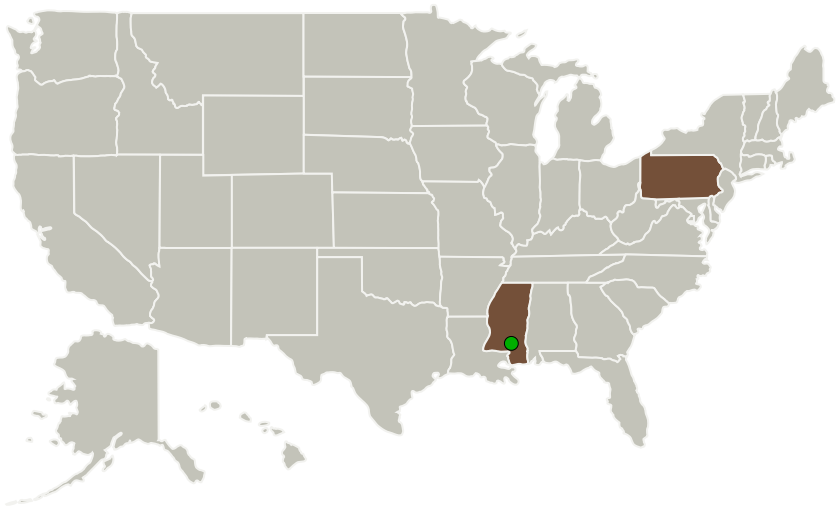
ModelLab: A Cloud-Based Platform to Support Advanced Geospatial Modeling of Earth Observation Data, Phase I

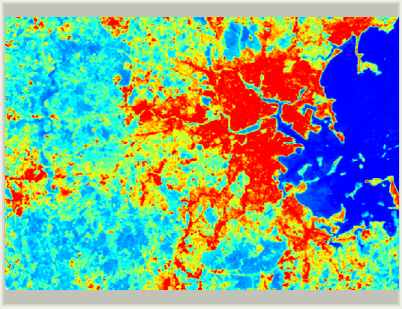
Completed Technology Project (2015 - 2015)

Project Introduction

The availability of geospatial data has increased dramatically over the past half-century, and so has the size of individual datasets. The ability to gather, store, access, and analyze these large geospatial datasets provides unprecedented opportunities for innovation and understanding that are only partially addressed by existing geospatial data processing tools and public cloud computing platforms. The ModelLab will address this concern by providing an entirely new type of user experience that will make geospatial modeling capabilities available not only to trained geospatial professionals, but also to non-technical users in a broad range of public and private sector positions. Further, it will both simplify and shorten the development process for a host of model-driven software applications by providing developers with a growing catalog of well-crafted models to build and innovate from.

Primary U.S. Work Locations and Key Partners





ModelLab: A Cloud-Based Platform to Support Advanced Geospatial Modeling of Earth Observation Data, Phase I

Table of Contents

Project Introduction	1
Primary U.S. Work Locations and Key Partners	1
Project Transitions	2
Organizational Responsibility	2
Project Management	2
Technology Maturity (TRL)	2
Images	3
Technology Areas	3
Target Destinations	3

ModelLab: A Cloud-Based Platform to Support Advanced Geospatial Modeling of Earth Observation Data, Phase I

Completed Technology Project (2015 - 2015)

Organizations Performing Work	Role	Type	Location
Azavea, Inc.	Lead Organization	Industry Historically Underutilized Business Zones (HUBZones)	Philadelphia, Pennsylvania
Stennis Space Center(SSC)	Supporting Organization	NASA Center	Stennis Space Center, Mississippi

Primary U.S. Work Locations	
Mississippi	Pennsylvania

Project Transitions

June 2015: Project Start

December 2015: Closed out

Closeout Summary: ModelLab: A Cloud-Based Platform to Support Advanced G eospatial Modeling of Earth Observation Data, Phase I Project Image

Closeout Documentation:

- Final Summary Chart Image*(https://techport.nasa.gov/file/139121)*

Organizational Responsibility

Responsible Mission Directorate:

Space Technology Mission Directorate (STMD)

Lead Organization:

Azavea, Inc.

Responsible Program:

Small Business Innovation Research/Small Business Tech Transfer

Project Management

Program Director:

Jason L Kessler

Program Manager:

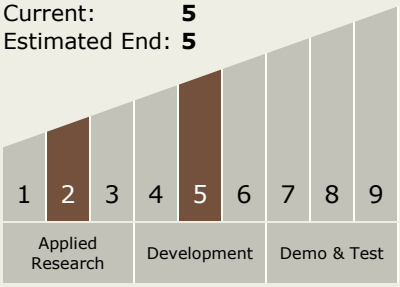
Carlos Torrez

Principal Investigator:

Robert Cheetham

Technology Maturity (TRL)

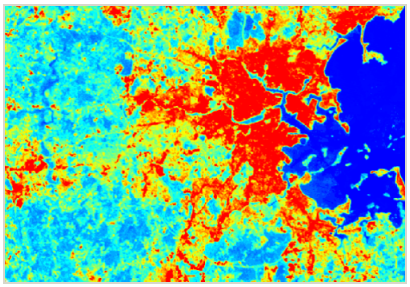
Start: **2**
Current: **5**
Estimated End: **5**



ModelLab: A Cloud-Based Platform to Support Advanced Geospatial Modeling of Earth Observation Data, Phase I

Completed Technology Project (2015 - 2015)

Images



Briefing Chart Image
ModelLab: A Cloud-Based Platform to Support Advanced Geospatial Modeling of Earth Observation Data, Phase I
(https://techport.nasa.gov/image/137192)

Technology Areas

Primary:

- TX11 Software, Modeling, Simulation, and Information Processing
  - TX11.6 Ground Computing
    - TX11.6.5 Public Cloud Supercomputer

Target Destinations

The Sun, Earth, The Moon, Mars, Others Inside the Solar System, Outside the Solar System